Health Issues Report 2000

City of Hamilton
&
Region of
Hamilton-Wentworth

Social & Public Health Services Division

A Teaching Health Unit affiliated with McMaster University, the University of Guelph and the Ontario Public Health Research, Education and Development (PHRED) Program.

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In November 1999 the Provincial Minister of Municipal Affairs and Housing announced that the Cities of Hamilton and Stoney Creek, the Towns of Ancaster, Dundas, Flamborough and Glanbrook and the Region of Hamilton-Wentworth would be amalgamated and become the new City of Hamilton effective January 1, 2001. The objective of amalgamating the municipalities is to lower taxes, reduce the number of elected officials and retain or improve service delivery.

The Province appointed a seven-member Transition Board to oversee the amalgamation during the Year 2000 that includes: recommending a new administrative and political structure for the new City as well as applying best practices for service delivery. This publication was produced during the Year 2000 and reflects the 'transitional' nature of this time period.

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Health-Related Quality of Life

- ☆ According to the 1999 Hamilton-Wentworth Health Survey, 88% of respondents aged 18 years and over stated that their health was excellent, very good or good. – *page 6*

- ☆ Females born in Hamilton-Wentworth in 1996/97 could expect to live 81 years, but only 74 years would be without a major limitation or health problem. Males born in 1996/97 could expect to live to age 76, but only 70 years would be without a major limitation or health problem. – *page 7*

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- ☆ On any given night in 1998, approximately 175 people used overnight emergency shelter and hostel services in the City of Hamilton. – *page 8*

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- ☆ In Hamilton-Wentworth in 1995, 23,815 economic families were poor compared to 18,295 families in 1990. – *page 10*

- ☆ Of the Hamilton-Wentworth elementary school children screened in a 1999/2000 survey, 11% (or 572) had serious, untreated dental problems. – *page 10*

- ☆ No cases of diphtheria, polio, rubella, tetanus or measles have occurred in Hamilton-Wentworth since 1997. – *page 11*

Reproductive Health

- ☆ In Hamilton-Wentworth in 1996, approximately 9.2% (or 540) of all singleton live births were low birth weight and/or premature. – *page 12*

- ☆ The infant mortality rate for Hamilton-Wentworth has decreased over the past 15 years from an average of 8 infant deaths per 1,000 live births during 1981 - 1985 to 6 infant deaths per 1,000 live births during 1992 - 1996 – *page 12*

Healthy Aging

- ☆ In 1998 (fiscal year), there were 1,017 hospitalizations among Hamilton-Wentworth residents aged 65 years and over because of fall-related injuries. – *page 13*

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Air, Food and Water Quality

- ☆ The 1999 Hamilton-Wentworth Health Survey found that 36% of respondents reported being exposed to second-hand smoke every day. – *page 14*

- ☆ The 1999 Hamilton-Wentworth Food Safety Survey found that a large proportion of respondents did not use proper food handling practices at home. For example, 43% of respondents did not regularly wash their hands with soap and water before preparing food. – *page 14*

Tobacco Use, Alcohol Use and Problem Gambling

- ☆ In 1996/97, an estimated 25% of Hamilton-Wentworth people aged 12 years and over were daily or occasional cigarette smokers: 27% for males and 24% for females. Smoking rates were higher among youth aged 15 to 24 years with 32% being daily or occasional smokers. – *page 15*

- ☆ Consuming five or more drinks on one occasion – or binge drinking – is the type of drinking most associated with injury. An estimated 17,000 people in Hamilton-Wentworth were at risk for alcohol-related injuries and other health and social problems in 1996/97 because of binge drinking. – *page 15*

Physical Activity, Healthy Weight and Cost of Healthy Eating

- ☆ In Hamilton-Wentworth, an estimated 51% of males and 62% of females aged 20 years and over were physically inactive in 1996/97. – *page 16*

- ☆ In Hamilton-Wentworth, a family of four requires an average of $101.30 per week to purchase nutritious foods in 2000. – *page 16*

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- ☆ Chlamydia accounted for 86% (or 569) of newly reported sexually transmitted diseases in Hamilton-Wentworth in 1999. – *page 17*

Heart Disease

- ☆ Cardiovascular disease was the leading cause of death for both males and females in Hamilton-Wentworth in 1997. It accounted for 1,419 deaths or 35% of all deaths in Hamilton-Wentworth. – *page 18*

Cancer

- ☆ Cancer was the leading cause of premature death, in Hamilton-Wentworth in 1997, responsible for 30% of all potential years of life lost among males and females. – *page 19*

Injuries

- ☆ In Hamilton-Wentworth, there were 158 injury-related deaths accounting for 4% of all deaths in 1997. Unintentional falls were the leading cause of injury-related death followed by motor vehicle collisions and suicide. – *page 20*

Infectious Diseases

- ☆ In 1999, 1,992 confirmed cases of reportable infectious disease were recorded in Hamilton-Wentworth, down 7% from 2,147 cases in 1998. – *page 21*

Introduction

Objectives

The objectives of the Health Issues Report are to:

1. Provide councillors, health and social services planners and providers, educators, and students in Hamilton-Wentworth with up-to-date community health information, in keeping with the Mandatory Health Programs and Services Guidelines of the Ontario Ministry of Health and Long-Term Care (MOHLTC).

2. Facilitate the communication of community reports and studies on health topics relevant to the people living in Hamilton-Wentworth.

3. Provide highlights of health issues in Hamilton-Wentworth using existing community health information.

VISION 2020: Sustainable Community

The Health Issues Report provides information and data on the health and well-being of our local community. This report complements the VISION 2020 Sustainable Community Indicators initiative by providing City/Regional decision-makers with information relevant to the sustainable community principles.

Hamilton-Wentworth and Central West Ontario

The Regional Municipality of Hamilton-Wentworth is made up of six area municipalities which will become the New City of Hamilton in January 2001: Township of Glanbrook, Town of Flamborough, Town of Dundas, Town of Ancaster, City of Hamilton, and City of Stoney Creek.

Hamilton-Wentworth is one of seven public health units in the central west area of Ontario. The other six public health units are: Brant, Haldimand-Norfolk, Halton, Niagara, Waterloo, and Wellington-Dufferin-Guelph (see map on page 22).

Sources of Data and Information

The most up-to-date data available were used in this report. Data availability, however, varied by source resulting in the use of data from 1994 up to 2000. Where possible, comparisons were made over time and across jurisdictions.

Multiple data sources were used for this report including:

- Social and Public Health Services Division program data (for example, Ontario Works, Reportable Disease Information System [RDIS], Immunization Record Information System [IRIS], and Dental Indices Survey)
- 1996/97 Ontario Health Survey (MOHLTC)
- 1999 Hamilton-Wentworth Health Survey
- Health Planning System [HelPS] (MOHLTC)
- Provincial Health Planning Database (MOHLTC)
- Census Canada, 1971 and 1996 (Statistics Canada)
- Canadian Council on Social Development, 1995 Urban Poverty Database
- VISION 2020 Sustainable Community Indicators initiative
- City/Region Household and Labour Force Projections, 1999
- Ontario Provincial Report on Achievement: Assessment Results: Grade 3 Reading, Writing and Mathematics, 1998/99 (Education Quality and Assessment Office)

We thank the many agencies, organizations and projects that have contributed valuable data and information to this report including:

- Central West Health Planning Information Network (CWHPIN)
- *"Keeping Score"* on *Kids* in Hamilton-Wentworth, Canadian Centre for Studies of Children at Risk
- District Health Council of Hamilton-Wentworth
- Social Planning and Research Council of Hamilton-Wentworth
- Hamilton Air Quality Initiative
- Infection Control Services of Hamilton Health Sciences Corporation and St. Joseph's Hospital
- Hamilton's Depression and Anxiety Information Resource and Education Centre
- Institute for Clinical Evaluative Sciences
- World Health Organization and Harvard School of Public Health

Additional information on health issues in Hamilton-Wentworth can be found in *Infobook: Infowatch Series: Community Health Newsletter*. Specific Health Issues Report data and information sources are available through the Social and Public Health Services Division.

Population Characteristics in Hamilton-Wentworth, 1996

Land Area in Square Kilometers:		**1,113**
Population by Municipality:		
Hamilton-Wentworth 1991	451,665	
Hamilton-Wentworth 1996	**467,799**	**100%**
Hamilton	322,352	69
Stoney Creek	54,318	12
Flamborough	34,037	7
Ancaster	23,403	5
Dundas	23,125	5
Glanbrook	10,564	2
Hamilton-Wentworth 2021^	575,825	—
Percent (%) change 1991-1996	+3.6	—
Percent (%) change 1996-2021	+23.1	—
^ *Based on City/Region population projections*		
Population by Marital Status (15 years and over):	**374,305**	**100%**
Never married	107,755	29
Legally married	200,550	54
Separated but still legally married	11,705	3
Divorced	26,835	7
Widowed	27,460	7
Population of Never-Married Sons and/or Daughters Living at Home:	**152,925**	**100%**
Under 6 years of age	36,350	24
6 - 14 years of age	55,575	36
15 - 17 years of age	16,395	11
18 - 24 years of age	29,165	19
25 years of age and older	15,435	10
Total Number of Families:	**127,960**	**100%**
Total husband-wife families	108,235	85
Husband-wife families with children living at home	(63,240)	(49)
Husband-wife families with no children living at home	(44,995)	(35)
Total lone-parent families	19,725	15
Female lone parent families	(16,755)	(13)
Male lone parent families	(2,965)	(2)
Total Number of Families with Children :	**82,970**	**100%**
With 1 child at home	33,700	41
With 2 children at home	33,680	41
With 3 or more children at home	15,590	19
Households by Total Household Income:	**178,420**	**100%**
Under $10,000	12,735	7
$10,000 - $19,999	29,990	17
$20,000 - $29,999	23,340	13
$30,000 - $39,999	20,435	11
$40,000 - $49,999	18,615	10
$50,000 - $59,999	17,885	10
$60,000 - $69,999	14,270	8
$70,000 and over	41,140	23
Average household income	$ 49,231	—
Median household income	$ 41,248	—
Population 15 Years and Older by Highest Level of Schooling:	**369,110**	**100%**
Less than grade 9	42,625	12
Grades 9 to 13	145,190	39
Without secondary school graduation certificate	(92,290)	(25)
With secondary school graduation certificate	(52,900)	(14)
Trades certificate or diploma	14,655	4
Other non-university training	94,340	26
Without certificate/diploma	(25,460)	(7)
With certificate/diploma	(68,885)	(19)
University	72,295	20
Without degree	(29,520)	(8)
Without certificate/diploma	(15,120)	(4)
With certificate/diploma	(14,400)	(4)
Bachelor's degree or higher	(42,770)	(12)
Total Population 15 - 24 Years Attending School:	**59,950**	**100%**
Full-time	36,350	61
Part-time	3,640	6
Not attending school	19,965	33
Population by Literacy Level[+]:		
Great difficulty reading	—	27%
Read but not well	—	33%
Basic skill level	—	30%
High level of literacy	—	10%

[+] *Statistics Canada, International Adult Literacy Survey, 1994*

- Cultural Diversity -

Immigrant population	113,965	24[†]
Visible minority population	41,440	9[†]
Aboriginal population	4,825	1[†]

[†] *Proportion of the total Hamilton-Wentworth population (467,799).*

Total Visible Minority Population:	**41,440**	**100%**
Black	8,655	21
South Asian	8,450	20
Chinese	5,890	14
Southeast Asian	4,240	10
Arab/West Asian	3,960	10
Latin American	3,360	8
Filipino	3,070	7
Japanese	1,080	3
Korean	900	2
Visible minority *	955	2
Multiple visible minority **	895	2

* *Not included elsewhere. Includes Pacific Islanders and other visible minority groups.*

** *Includes respondents who reported more than one visible minority group.*

Total Immigrant Population by Period of Immigration:	**113,965**	**100%**
Before 1961	36,585	32
1961 - 1970	24,350	21
1971 - 1980	18,640	16
1981 - 1990	18,975	17
1991 - 1996	15,420	14
Population by Mother Tongue:	**456,055**	**100%**
Official language	355,725	78
English	(349,460)	(98)
French	(6,265)	(2)
Non-official language	100,330	22
Total Non-official Language as Mother Tongue:	**100,330**	**100%**
Italian	21,505	21
Polish	9,135	9
Portuguese	7,360	7
German	6,530	7
Croatian	5,575	6
Chinese	4,870	5
Spanish	4,005	4
Dutch	3,915	4
Serbian	3,625	4
Hungarian	3,175	3
Ukrainian	3,110	3
Arabic	2,575	3
Punjabi	2,505	3
Greek	2,280	2
Vietnamese	2,175	2
Tagalog	1,170	2
Romanian	1,115	1
All others‡	15,705	16

‡ *There are 66 other mother tongue languages in Hamilton-Wentworth*

Note: The above data on cultural diversity are based on 1996 Statistics Canada Census numbers and do not include recent (since 1996) immigrants to Hamilton-Wentworth such as Hungarians and Kosovars.

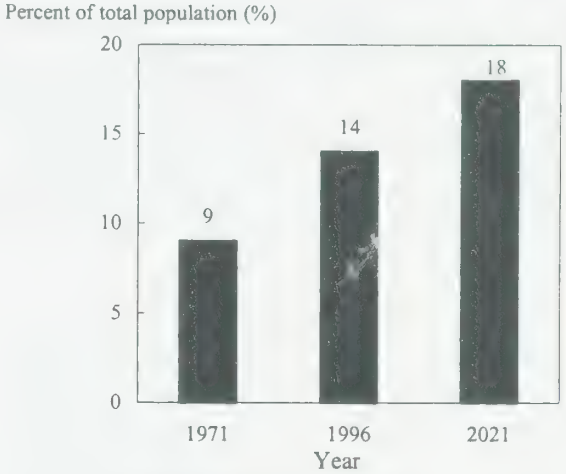
Source: 1996 Census of Canada, Statistics Canada, 1998 (except where indicated otherwise). Note: The percentages may not sum to 100 due to rounding.

Population Structure:

Canada has an aging population because throughout this century the average life expectancy has increased and the average number of children born per family has decreased. In Hamilton-Wentworth (H-W), seniors (aged 65 years and over) represent a growing percent of the population: from 9% in 1971 to 14% in 1996 and a projected 18% in 2021 (Figure 1). In comparison, children aged 14 years and younger represent a shrinking percent of the population: from 27% in 1971 to 20% in 1996 and a projected 17% in 2021.

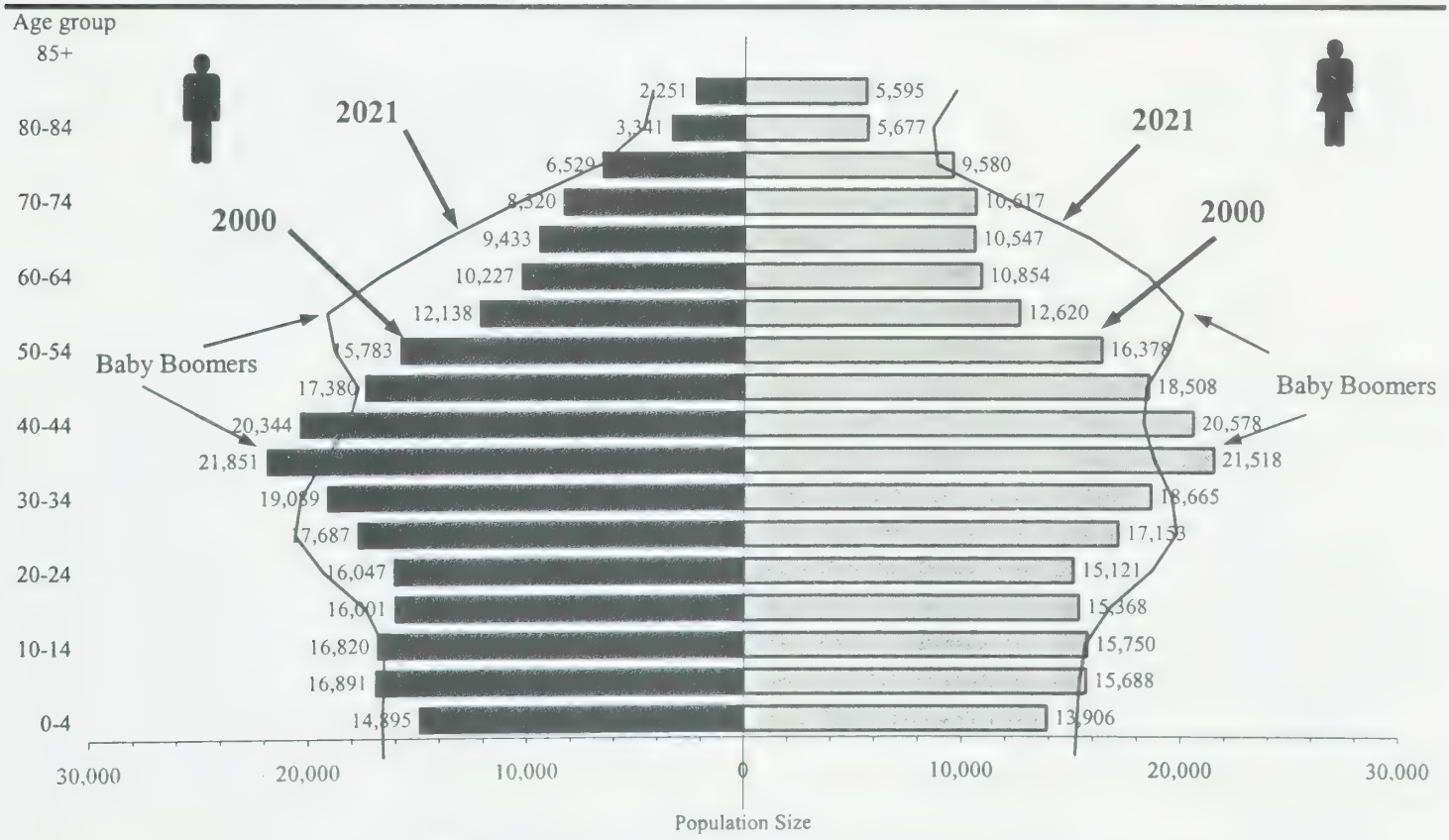
The projected population pyramids for H-W in 2000 and 2021 are presented in Figure 2. This figure shows how the H-W population is aging in two distinct ways. First, the 'baby boom' bulge is moving into the older age groups. Most of this bulge is estimated to reach the 65 years and over age group around 2021 and surpass it by 2031. Secondly, due to increased life expectancy the number of people 65 years of age and over in H-W is projected to increase between 2000 to 2021. This is especially noticeable among females aged 80 years and over.

Figure 1. Percentage of People Aged 65 Years and Over in Hamilton-Wentworth, 1971, 1996, and 2021



Sources: 1971: Statistics Canada, 1971 Census.
1996: MOHLTC, Provincial Health Planning Database, 2000.
2021: City of Hamilton/Region of Hamilton-Wentworth Household and Labour Force Projections, 1999.

Figure 2. Age and Gender Population Pyramid, Hamilton-Wentworth, 2000 and 2021 Projections



Sources: 2000: MOHLTC, Provincial Health Planning Database, 1999.
2021: City of Hamilton / Region of Hamilton-Wentworth Household and Labour Force Projections, 1999.

Health-Related Quality of Life in Hamilton-Wentworth

Health-related quality of life can be characterized by self-reported health status, the healthy days index, health-adjusted life years, activity limitation and mental health status.

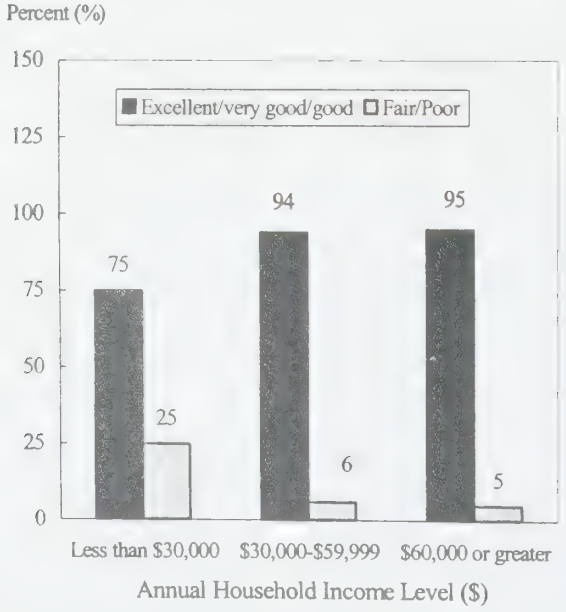
Self-Perceived Health Status

Self-perceived health status reflects what people think about their own health. According to the 1999 Hamilton-Wentworth (H-W) Health Survey, 88% of respondents aged 18 years and over stated that their health was excellent, very good or good. Twelve percent said their health was fair or poor.

Self-perceived health status varies by age with younger people reporting better health. In H-W, 95% of surveyed people aged 25 to 44 years stated that their health was excellent, very good or good, compared to 81% of people aged 45 to 64 years and 80% of people aged 65 years and over.

Self-perceived health status also varies by income level. H-W residents with higher household incomes were more likely to report positive health status (excellent, very good or good) than residents with lower household incomes (Figure 3).

Figure 3. Self-Perceived Health Status by Annual Household Income Level, Hamilton-Wentworth, 1999



Source: H-W Social and Public Health Services Division, 1999 H-W Health Survey, 2000.

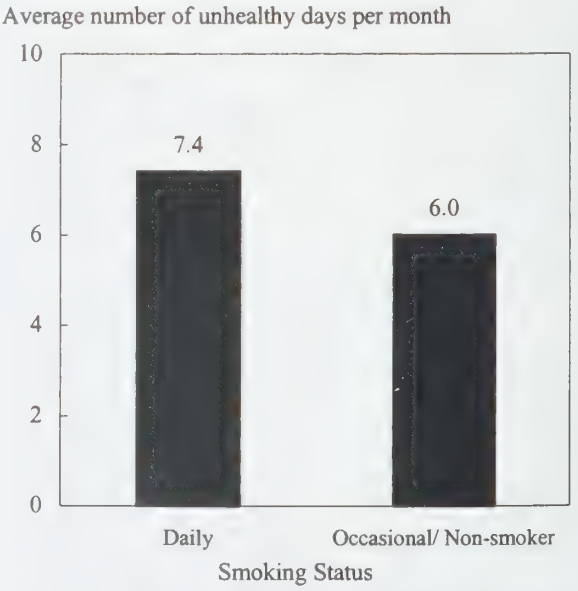
Healthy Days Index

Another measure of health-related quality of life is the number of days per month that adults experience poor mental and/or physical health. According to the 1999 H-W Health Survey, adults (aged 18 years and over) reported an average of 6.3 unhealthy days per month.

As with self-perceived health status, the average number of unhealthy days varies by population characteristics such as income and smoking status. Individuals at the lowest annual household income level (less than $30,000) reported an average of 10.6 unhealthy days per month. However, individuals at the middle annual household income level ($30,000-$59,999) reported an average of 5.0 unhealthy days per month and individuals with an annual household income greater than $60,000 reported 4.8 unhealthy days per month.

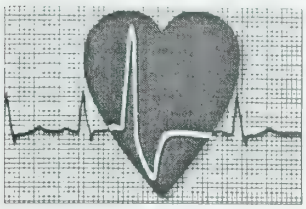
There is also a relationship between health-related quality of life and smoking status (Figure 4). In H-W in 1999, the average number of unhealthy days per month was higher among daily smokers (7.4 days) than occasional and non-smokers (6.0 days).

Figure 4. Average Number of Unhealthy Days per Month by Smoking Status, Hamilton-Wentworth, 1999



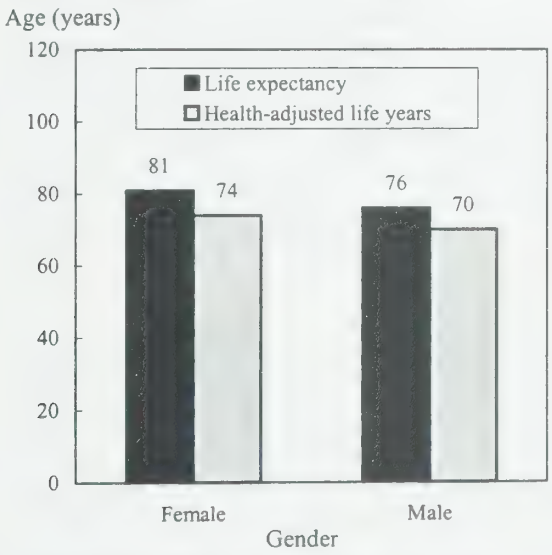
Source: H-W Social and Public Health Services Division, 1999 H-W Health Survey, 2000.

Health-Adjusted Life Years



Health-adjusted life years measure the length of time one can expect to live without a major limitation or health problem. For example, if life expectancy is 80 years, but the health-adjusted life years is 75, one can expect to live to age 80, but only 75 years will be without a major limitation or health problem. Limitations and health problems usually occur in the last years of life. Females born in Hamilton-Wentworth (H-W) in 1996/97 could expect to live 81 years, but only 74 years would be without a major limitation or health problem (Figure 5). Males born in 1996/97 could expect to live to age 76, but only 70 years would be without a major limitation or health problem (Figure 5).

Figure 5. Life Expectancy and Health-Adjusted Life Years by Gender, Hamilton-Wentworth, 1996/97



Source: Institute for Clinical Evaluative Sciences, 2000.

Activity Limitation

According to the 1999 H-W Health Survey, the majority of H-W respondents (80%) did not experience any form of limitation with daily activities due to impairments or health problems in 1999. However, 20% of H-W respondents did report limitations. Of the respondents reporting limitations, 35% required assistance with routine activities such as household chores, shopping, and doing house-related business, and 7% required assistance with their personal care (for example, assistance with eating, bathing, dressing and getting around the house).

Mental Health

The World Health Organization and the Harvard School of Public Health ranked depression as the number one cause of disability in the world in 1990. Major depression affects an estimated 5% to 10% of the population at any given time.

In H-W in 1996/97, four percent of non-institutionalized people aged 12 years and over suffered a major depressive episode within the last 12 months and seven percent reported feeling depressed in the last two weeks.

More females suffer from depression compared to males. According to the World Health Organization, 25% of females aged 12 years and over are expected to suffer from depression during their lifetime, compared to only 13% of males aged 12 years and over.

Among the general adolescent population, the prevalence of Major Depressive Disorder is estimated at three percent and the prevalence of Dysthymic Disorder, a less severe type of depression, is estimated at one to four percent.

In H-W, the hospitalization rate for mental disorders was 41 per 10,000 population in 1998 (fiscal year). The highest hospitalization rates for mental disorders were found among people aged 85 years and over (96 per 10,000) and 75 to 84 years (75 per 10,000), followed by people aged 35 to 44 years (64 per 10,000) and 20 to 24 years (53 per 10,000).

Depression is a major cause of lost productivity. The U.S. Surgeon General ranked depression as the number one cause of workplace absenteeism and diminished productivity. Hamilton's Depression and Anxiety Information Resource and Education Centre estimates the cost of lost work in Canada, due to depression, to be as high as $4 billion a year.

Ownership/Rental Breakdown

Of the 178,425 private dwellings in Hamilton-Wentworth (H-W) in 1996, 63% (112,190 dwellings) were owned and 37% (66,230 dwellings) were rented.

Age and Condition of Private Dwellings

In H-W, the majority of houses were built before 1971 (62%). Of the 178,425 private dwellings in H-W in 1996, 65% (115,285 dwellings) required only regular maintenance, 27% (48,505 dwellings) required minor repairs, and 8% (14,625 dwellings) required major repairs.

Between 1991 and 1996, the number of dwellings in H-W requiring only regular maintenance declined by 1% (1,335 dwellings). However, the proportion requiring minor and major repairs increased by 23% (9,040 dwellings) and 16% (1,980 dwellings) respectively.

Affordable Housing

Availability and cost relative to income are the two main obstacles to affordable housing. In H-W in 1995, 47% of tenants spent approximately a third of their income on rent and 23% of tenants spent more than half of their income on rent.

In 1996, there were 66,230 rental units in H-W with 57,460 (87%) of these units in the City of Hamilton. From 1998 to 1999, the City of Hamilton vacancy rate dropped from four percent to two percent. A vacancy rate lower than three percent may result in higher rent costs, less consumer choice and less maintenance.

If an individual is eligible for social assistance (Ontario Works) a shelter allowance is provided. As of August 2000, there were 11,437 clients (one client per household) on social assistance in H-W. Of these clients, 41% (4,717 clients) had their actual rent covered by the shelter allowance whereas 59% (6,720 clients) did not. Since 1995, the gap between social assistance shelter allowance and the actual rental cost of shelter has widened. Two factors have contributed to this widening gap. First, provincial cuts to social assistance by 22% in 1995 reduced clients' income level. Second, the supply of affordable rental housing has shrunk due to elimination of provincial social housing supply programs, conversion of rental units into condominiums and the removal of rent control on vacant units. The gap for 1999 is shown in Table 1.

Table 1. Average Monthly Rent for Vacant Rental Units and Maximum Monthly Shelter Allowances, City of Hamilton, 1999

Number of bedrooms	Average rent per month ($)	Maximum shelter allowance per month($)
Bachelor	420	325 (1 person)
One bedroom	527	511 (2 persons)
Two bedroom	653	511 (2 persons)
Three bedroom	766	602 (4 persons)

Source: Social Planning & Research Council, Homelessness Profile, 2000.

Of the 11,299 not-for-profit housing units funded by the Region of H-W, 9% (or 974) of units are managed by the City of Hamilton through its non-profit housing corporation. A further 91% (or 10,325) of units are managed by the 38 housing provider members of the Community Housing Access Network (CHAN), including non-profits, co-operatives and the local housing authority. There are about 5,000 additional local units of not-for-profit housing that are funded by the federal government. At the end of July 2000, 3,400 people were on the CHAN waiting list. On average, there are 350 new applications per month.

As a consequence of unaffordable and unavailable housing, people may double up with friends and family or end up camping or living in vacant buildings, outdoor spaces or shelters. On any given night in 1998, approximately 175 people used overnight emergency shelter and hostel services in the City of Hamilton.

Supportive Housing

For some people who have physical, mental or developmental challenges, housing is only adequate when it includes a component of support for the daily activities of life. Individuals who have been discharged from in-patient mental health programs, rehabilitation programs, correctional institutions, and hospitals might also need support. For example, they might need guidance reintegrating into daily life and assistance finding employment and appropriate housing.

Housing options for these people include Homes for Special Care, Second Level Lodging Homes (known provincially as Domicilliary Hostels), Care Homes, H.O.M.E.S. (Housing with Outreach and Mobile Engagement Services), and non-profit or other housing with in-home assistance from support workers. Sometimes the match between supports and needs is not good. The lack of client centred supports that are accessible, available and portable, may impact people's functionality and increase their risk of homelessness.

Employment and Income in Hamilton-Wentworth

Poverty Profile

In 1990, 17% of the Hamilton-Wentworth (H-W) population lived below the poverty line (that is, had total incomes below the Statistics Canada Low Income Cut-Off). By 1995, 22% of H-W residents lived in poverty, giving H-W the second highest poverty rate after Toronto (28%) when compared to other Ontario regional municipalities.

Poverty in H-W was more prevalent among specific groups in 1995. Poverty rates for some groups were:

- Single parent families with children under 18 years: 64%
- Recent immigrants: 50%
- Aboriginal peoples: 48%
- Unattached individuals: 48%
- People not in the labour force: 32%
- Children aged 14 years or under: 27%

Whereas 69% of the total H-W population lived in the City of Hamilton, the city was home to 87% of poor people in 1995. This urbanization of poverty is due to a number of factors: middle and upper income families settling in suburban areas to raise children; poor individuals and families migrating to the city for better access to services for the poor; and, unattached individuals (typically poorer than families) attracted by the city centre lifestyle.

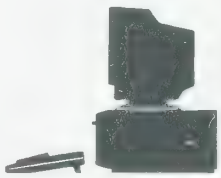
Ontario Works is a social assistance program available for single people, families, and sole support parents that find themselves in need of financial assistance. In August 2000, Ontario Works in H-W had 11,437 cases (one case per household) on its caseload, comprised of 26,587 beneficiaries (includes recipients and other family members living in the same household). The number of cases and beneficiaries has decreased since the download of provincial cases which was completed in 1999.

Historically, the majority of the caseload has been single individuals. However, with the download from the province of the sole support cases, sole support cases have become the majority. For example, sole support families made up approximately 20% of the caseload in January 1998, 49% of the caseload in January 1999 and 62% of the caseload in January 2000.

Employment and Poverty

Education, employment and occupational skill level are strong predictors of income level, but are no guarantee against poverty. In general, the likelihood of living in poverty decreases as education levels, employment activity and occupational skill levels increase. However, high educational achievement, full employment and high occupational skill levels do not protect all individuals and their families from poverty. For example, in the City of Hamilton in 1995, the poverty rate for people who had less than a secondary education was 32% and the rate for those with post-secondary education was still 16% (Table 2).

In Hamilton in 1995, the poverty rate was 49% for people with no employment and the rate for people with full-time, year round employment was 7% (Table 2).



The economy's move toward technology and away from manufacturing has resulted in an increased demand for high level occupational skills (such as management, technology, skilled crafts and trades) and a lower demand for low level occupational skills (such as sales, service and manual work). The Hamilton poverty rate among people with low level occupational skills was 24% and the rate for people with high level occupational skills was 11% in 1995 (Table 2).

Table 2. Percentage of People Living Below and Above the Poverty Line by Education Level, Employment Status and Occupational Skill Level, City of Hamilton, 1995

Characteristic	Percent (%) of people living	
	Below poverty line	Above poverty line
Education Level		
Post-secondary	16	84
Less than secondary	32	68
Employment Status		
Full-time, year-round	7	93
No employment	49	51
Occupational Skill Level*		
High	11	89
Low	24	76

*High skill level occupations include management, technology, skilled crafts and trades. Low skill level occupations include sales, service and manual work.

Source: Canadian Council on Social Development, 1995 Urban Poverty Database, 2000.

Using population projection methods, children and youth (aged 19 years and younger) are expected to comprise 25% (125,319) of Hamilton-Wentworth's (H-W's) population in 2000.

The early years of child development, especially birth to three years, are critical in establishing a person's long-term learning and coping skills, behaviour and health status. Healthy child development requires a variety of supportive and nurturing community environments including caring, opportunity, learning and harmonious communities.

Opportunity Communities:
Family Income

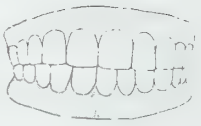
An economic family refers to a group of two or more persons who live in the same dwelling and are related to each other by blood, marriage, common-law or adoption. The poverty rate refers to the proportion of the population with a total income before taxes that falls below the Statistics Canada Low Income Cut-Off (LICO). LICO represents levels of gross income where individuals and families spend approximately 50% of their income on food, shelter and clothing and is based on the size of the community and size of the family.

The poverty rate among economic families increased in H-W between 1990 and 1995, as it did in Ontario and Canada.

In H-W in 1995:

- 23,815 economic families were poor compared to 18,295 families in 1990. Of the 23,815 poor families in 1995, 44% had children under the age of six years and 25% had children between the ages of six and 12 years.
- 64% (or 7,840) of single parent families with children under 18 years were poor compared to 54% in Ontario and 55% in Canada.
- 63% of the poor, single parent economic families had no income earner in the family.
- 19% of economic families lived in poverty compared to 15% in Ontario and 16% in Canada.

Caring Communities:
Dental Health



The 1999/2000 Dental Indices Survey, conducted in a sample of H-W elementary schools, found that among screened children:

- 72% (or 3,870) of Junior and Senior Kindergarten children had never had a cavity, and those with cavities had, on average, decay in four teeth
- 40% (or 2,139) of all screened children could have benefited from a visit to the dentist
- 11% (or 572) of all screened children had serious, untreated dental problems

Dental service needs vary across schools. Elementary schools with high, medium and low priority dental service needs were identified using student scores on the Dental Indices Survey (DIS) and the Children in Need of Treatment (CINOT) assessment. Among the 88 screened elementary schools in H-W in 1999/2000:

- 19% (or 17) were identified as high priority
- 14% (or 12) were identified as medium priority
- 67% (or 59) were identified as low priority

Dental treatment needs are much greater in high priority schools as compared to low priority schools in H-W. For example, three times (18%) as many screened students in high priority elementary schools had serious, untreated dental problems compared to screened students in low priority elementary schools (6%) in 1999/2000.

Many of the schools with high priority dental service needs were located in areas where a higher proportion of families live below the Statistics Canada LICO compared to schools with low priority dental service needs. Lower income families experience more financial barriers to attaining good dental health than middle and high income families.

Learning Communities:
Reading, Writing and Mathematics

Basic reading, writing and mathematic skills are primarily acquired by Grade 3. These skills are considered fundamental for continued learning and future success and well-being. During the 1998/99 school year Grade 3 students in Hamilton-Wentworth (H-W) Public (4,000 students) and Catholic (2,000 students) schools were tested for reading, writing and mathematical abilities.

In H-W overall, a higher proportion of Grade 3 students scored within or above expected reading and writing levels compared to Ontario Grade 3 students overall. For example, 45% of H-W Grade 3 students scored within or above the expected reading level compared to 44% of Ontario Grade 3 students. In H-W, 54% of Grade 3 students scored within or above the expected writing level compared to 51% of Ontario Grade 3 students. The same proportion of H-W Grade 3 students (56%) scored within or above the expected mathematics level compared to Ontario Grade 3 students (56%).

The H-W Grade 3 test results varied between school boards and individual schools. Test results are likely influenced by numerous socio-economic, educational and measurement factors including: family income and structure, parental education level and employment status, mother tongue and home language, immigrant status, school programs and teacher characteristics, and the reliability of the standardized tests and their classroom implementation.

Harmonious Communities:
Child Care

The City of Hamilton's Children's Charter of Rights advocates for access to high quality child care and early education programs designed to ensure the healthy development of our children.

In H-W, there are approximately:

- 130 licensed child care centre sites providing approximately 5,000 child care spaces
- 145 approved not-for-profit private home day care sites
- 60 approved for-profit private home day care sites

Caring Communities:
Immunization Rates

Children attending school are required, by law, to have complete tetanus, diphtheria and polio (TdP) and measles, mumps and rubella (MMR) vaccination records.

Each year the Social and Public Health Services Division monitors the immunization records of H-W students with the goal of maintaining high rates of immunization.

As evidence of the effectiveness of the current pre-school and school age vaccination programs for children, no cases of diphtheria, polio, rubella, tetanus or measles have occurred in H-W since 1997.

The proportion of complete TdP immunization records for the 1998/99 school year in H-W was higher for seven year old students compared to 17 year old students:

- 89% of seven year old students
- 63% of 17 year old students

In H-W, the proportion of complete MMR immunization records for the 1998/99 school year was similar regardless of age:

- 95% of seven year old students
- 95% of 17 year old students

Up-to-date immunization is also required for all children attending licensed daycare facilities.

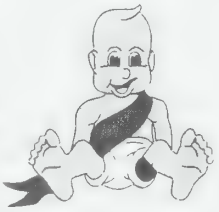
Hepatitis B Immunization Program

The Hepatitis B immunization program involves administering a complete course (three doses) of Hepatitis B vaccine to Grade 7 students.

In H-W, a complete course of vaccine was administered to the following proportion of Grade 7 students in the past three school years:

- 85% in 1997/98
- 86% in 1998/99
- 86% in 1999/2000

Low Birth Weight Babies



Babies who are born small often are at increased risk of illness, disability and death. Babies are born small because of a slow rate of fetal growth resulting in a birth weight of less than 2,500 grams (low birth weight) and/or because they are born too early (preterm – before 37 weeks gestation) and/or because of multiple births.

Research has shown that low birth weight (LBW) and premature babies represent approximately three-quarters of deaths within the first 28 days of life. Very LBW and preterm babies often require neonatal intensive care, estimated to cost $1,500 or more per day of care.

Research has shown that LBW term babies are at increased risk for some chronic diseases such as diabetes and heart disease later in life. LBW term babies occur more frequently among mothers who smoke, drink alcohol and have poor nutrition. Preterm babies are at greater risk of developing lung and neurological problems, delayed psychomotor development and death compared to LBW term babies. Other than smoking and poor nutrition, preterm risk factors are still, for the most part, unknown.

Prenatal class participation can help change expectant mothers' lifestyle choices and encourage communication between mothers, their partners and their health care providers.

Singleton versus Multiple Live Births

In 1996, there were approximately 5,850 live births to Hamilton-Wentworth females. Of these live births, 97.6% were singleton and 2.4% were multiple births.

Multiple birth is a risk factor for LBW. In 1996, 50.0% of multiple births were LBW. The percentage of multiple births rose in H-W from 1.7% (or 99) of all live births in 1981 to 2.4% (or 140) of all live births in 1996.

Total Low Birth Weight Baby Rate

In 1996, the total LBW baby rate (number of LBW singleton and multiple babies divided by number of live births) was 5.8% in H-W compared to 6.0% for Ontario. This rate has remained relatively stable since 1981 when 6.0% of all live births were LBW in H-W. Reducing the total LBW baby rate to 4.0% of all live births is the Ontario public health target for the year 2010.

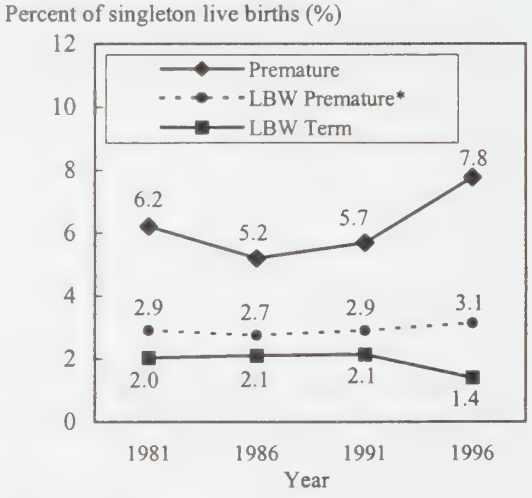
Singleton LBW Term and Preterm Baby Rates

In H-W in 1996, approximately 9.2% (or 540) of all singleton live births were LBW and/or premature.

Canada has seen the rate of LBW term births decrease and preterm births increase. A similar trend is found in H-W (Figure 6). Reasons for the rise in the rate of premature babies include increases in the practice of inducing preterm labour, increased preterm ceasarean sections, better methods for determining gestational age and improved technology to support pre-term life.

Among singleton live births in H-W, the LBW term baby rate was 1.4% and the preterm baby rate was 7.8% in 1996. Preterm babies can also be low birth weight. The LBW preterm baby rate among singleton births in H-W was 3.1% in 1996 (Figure 6).

Figure 6. Rate of Premature, Low Birth Weight Premature*, and Low Birth Weight Term Births among Singleton Live Births, Hamilton-Wentworth, 1981-1996



LBW = low birth weight.
*LBW Premature birth rate is a subcategory of the overall premature birth rate.
Source: MOHLTC, Ontario Live Births Database, 1999.

Infant Mortality

The infant mortality rate for H-W has decreased over the past 15 years from an average of 8 infant deaths per 1,000 live births during 1981 - 1985 to 6 infant deaths per 1,000 live births during 1992 - 1996.

Neural Tube Defects

Folic acid supplements before and during pregnancy can cut the risk of spina bifida and other neural tube defects by half. Neural tube defects are relatively rare in H-W with an average of five cases per year from 1992 to 1996. Decreasing the prevalence of neural tube defects by 25% by the year 2010 is an Ontario public health target.

Living Longer

Over the past century in Canada, there has been a trend of increasing life expectancy for seniors aged 65 years and over. In 1900, a 65 year old male was expected to live an additional 11 years to age 76, and a 65 year old female an additional 12 years to age 77. By 1996, a 65 year old male was expected to live to age 81, an additional 16 years, and a 65 year old female was expected to live to age 85, or 20 years longer.

In 1996/97, 65 year old Hamilton-Wentworth (H-W) residents could expect to live to the same age as other people in Canada with females living to age 85 and males to age 81.

Activity Limitation

While increased life expectancy among older adults is welcome, the quality of life for seniors (for example activity limitation) is equally important. In H-W in 1999, 33% of surveyed seniors aged 65 years and over reported an activity limitation or health problem.

In Canada over the past two decades (1978/79 to 1998/99), the estimated proportion of adults aged 65 to 74 years with an activity limitation declined from 34% to 26%.

Falls

Unintentional falls among seniors are preventable injuries. Falls are a leading cause of hospitalization among seniors which places a high burden on the health care system.

In 1998 (fiscal year) there were 1,017 hospitalizations among H-W residents aged 65 years and over because of fall-related injuries.

The annual hospitalization rates for falls for male and female seniors aged 65 to 69 years were the same at 6 per 1,000 for 1994-98 (fiscal years) (Figure 7). The rates increased with age for both genders. However, the rates were greater for females than males for each comparable age group. By the age of 80 to 84 years, the annual rate for females was 32 per 1,000 whereas the annual rate for males was 18 per 1,000 for 1994-98.

Seniors aged 80 years and over are at higher risk for hospitalization due to falls with females at greater risk then males. Of particular concern are the most elderly seniors (age 90+) with annual hospitalization rates of 64 per 1,000 for females and 51 per 1,000 for males for 1994-98. The average annual length of hospital stay due to falls for 1994-98 was 38 days for females and 35 days for males aged 65 years and over in H-W.

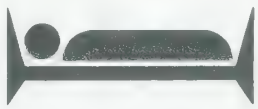
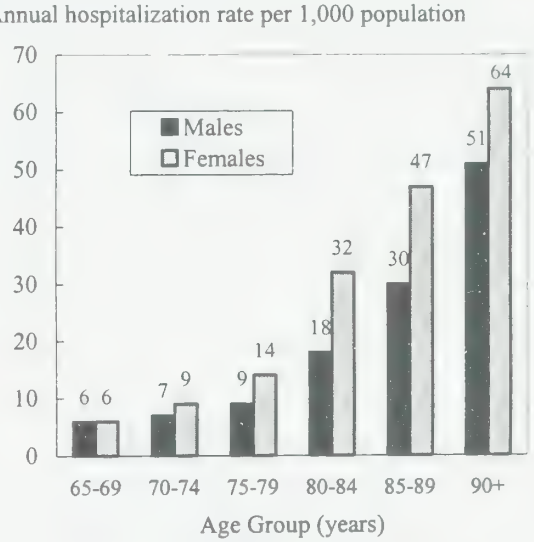


Figure 7. Annual Hospitalization Rate Due to Unintentional Falls by Gender and Age Group, Hamilton-Wentworth, 1994-1998 (fiscal years)



Source: MOHLTC, Provincial Health Planning Database, 2000.

Prescription & Over-the-Counter Drug Use

Taking multiple drugs, whether prescription or over-the-counter, puts people, especially seniors, at risk for harmful drug interaction effects and falls.

In H-W in 1996/97, 15% of seniors age 65 years and over took five or more drugs during the two days before the survey. An additional 15% of seniors took three or four drugs, 20% took two drugs and 30% took one drug during the two days preceding the survey. Only 20% of seniors took no medications during these two days.

Air, Water and Food Quality in Hamilton-Wentworth

Air Quality

Between 90 and 321 premature deaths and 300 hospitalizations are estimated to occur in Hamilton-Wentworth (H-W) each year due to pollution. Sources of local air pollution include local car and truck traffic, long-range atmospheric transport of pollution (for example, from Ohio Valley and Detroit) and local industry.

The VISION 2020 goals for improving air quality are: to ensure that H-W has the best air quality of any major urban area in Ontario and to reduce greenhouse gas emissions by 20% from 1990 levels. To determine how close we are to achieving these goals, the H-W Sustainability Indicators initiative measures several air quality indicators including inhalable particulate matter (PM_{10}) on an annual basis.

The average population exposure to PM_{10} (tiny air-borne particles which can penetrate the lungs) in H-W remained relatively constant at 20 to 21 micrograms per cubic meter from 1993 to 1998. This concentration is higher in the industrial area of Hamilton at 26 to 30 micrograms per cubic meter. The target for this indicator is to reduce PM_{10} levels.

Indoor air quality also has a negative impact on peoples' health. For example, second-hand tobacco smoke is associated with lung cancer and heart disease. The 1999 H-W Health Survey found that 36% of respondents reported being exposed to second-hand smoke every day.

Water Quality

-Drinking Water –

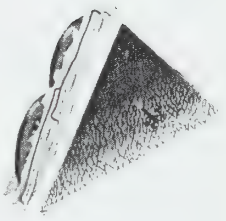
Studies in rural Ontario have shown that 30 to 35% of private wells are contaminated with bacteria and/or nitrates. People drinking well water are encouraged to take water samples to their local public health unit two to three times per year for bacterial testing.

- Recreational Water –

There are no chemical standards for recreational waters. In 1994, the Social and Public Health Services Division conducted sampling at H-W Bayfront Park and, using the provincial chemical standards for drinking water, concluded that the water tested was safe for swimming.

Food Quality

- Handling Ready-to-Eat Meats -



Ready-to-eat (RTE) meats include cooked and sliced sandwich meats. A 1997 H-W survey found that 89% of the surveyed delis and butchers had unacceptable levels of contamination in one or more of their RTE meat samples.

The contamination consisted of unacceptable levels of aerobic plate count, coliforms, gram negative bacteria and other types of organisms including E. coli (excluding the deadly strain O157:H7).

RTE meat samples were more likely to be contaminated if the food handler used no barrier technique (for example, rubber gloves or cellophane paper) and if meats were on sale.

These findings suggest that raw and RTE meats, handled by the same food handler, present a high risk for cross-contamination. The contact between raw and RTE meats provides a potential pathway for food-borne pathogens (such as salmonella and E. coli) to reach humans.

- Food Handling at Home –

Food-borne illnesses can be reduced in the home by proper hand washing, raw meat preparation, and thawing. The 1999 H-W Food Safety Survey found that a large proportion of respondents did not use proper food handling practices at home. For example,

- 43% did not regularly wash their hands with soap and water before preparing food
- 40% did not usually use separate plates for handling raw and cooked hamburger meat
- 31% usually used unsafe meat thawing methods such as thawing meat at room temperature

Tobacco Use, Alcohol Use and Problem Gambling in Hamilton-Wentworth

Abuse of substances such as tobacco and alcohol are behaviours associated with increased risk of illness, disease, disability and injury. Problem gambling is also known to have a negative impact on the quality of life of individuals and communities.

Tobacco Use

In 1996/97, an estimated 25% of Hamilton-Wentworth (H-W) people aged 12 years and over were daily or occasional cigarette smokers: 27% for males and 24% for females. Similar rates were reported for Ontario.

In H-W, an estimated 32% of youth aged 15 to 24 years reported being daily or occasional smokers compared to 28% in Ontario in 1996/97. This is a concern because research shows that youth smokers often continue to smoke as adults.

The 1999 H-W Health Survey included questions on smoking behaviours, attitudes and beliefs. Among the daily and occasional smokers surveyed:

- 67% smoked up to a small pack a day (20 cigarettes) whereas 33% smoked more than a small pack a day
- 64% had taken small steps towards quitting such as smoking less or not smoking in certain places
- 17% intended to quit in the next 30 days

Second-hand Smoke

Second-hand smoke contains over 4,000 chemicals, at least 40 of which are known to cause human cancers. Thus non-smokers are placed at health risk through their exposure to second-hand smoke from exhaled smoke and smoke from the burning end of cigarettes. Each year in H-W, an estimated 50 non-smokers die from diseases related to second-hand smoke.

According to the 1999 H-W Health Survey:

- 82% of respondents thought that exposure to second-hand smoke is likely to cause health problems, and, of these respondents, 72% were concerned about second-hand smoke exposure
- 79% of respondents supported by-laws restricting smoking to designated smoking areas in workplaces
- 75% of respondents supported by-laws restricting smoking to designated areas in restaurants

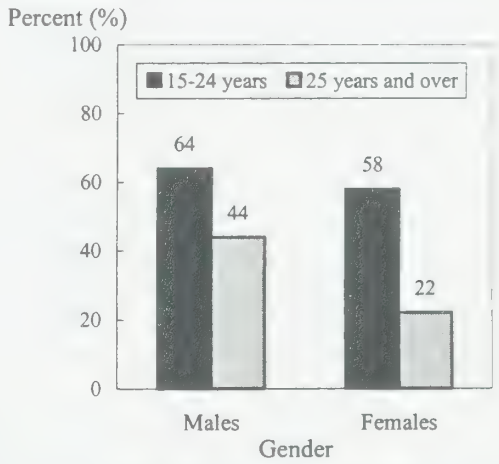
Alcohol Use

Recommended low-risk drinking guidelines say that males should consume no more than 14 drinks per week and females no more than nine drinks per week.

In H-W in 1996/97, among people aged 12 years and over who drank in the past year, an estimated six percent of males and four percent of females had weekly alcohol consumption in excess of the guidelines. Ontario rates were similar.

Consuming five or more drinks per occasion – or binge drinking – is the type of drinking most associated with injury. Overall, an estimated 17,000 people in H-W were at increased risk for alcohol-related injuries in 1996/97 because of binge drinking. Among H-W residents that drink, binge drinking was almost twice as common within the 15 to 24 age group (61%) as in the 25 and over age group (33%) in 1996/97. In both age groups, more males reported binge drinking than females (Figure 8).

Figure 8. Percentage of Past Year Drinkers Who Reported Binge Drinking* by Age Group and Gender, Hamilton-Wentworth, 1996/97



* Binge drinking is defined as having five or more drinks on one occasion in the last 12 months.
Source: MOHLTC, 1996/97 Ontario Health Survey & Central West Health Planning and Information Network Report, 2000.

Gambling

The prevalence of problem gambling is estimated to be between three and six percent of the adult population. Based on a conservative estimate of the number of problem gamblers in H-W (three percent or approximately 2,600 adults), the current treatment costs are estimated at $650,000 per year. A broader assessment of the potential social, economic and health costs of problem gambling (such as, policing, bankruptcy, substance abuse treatment and insurance costs) is estimated at $17,800 per problem gambler per year or a total of $47 million per year for H-W.

Participating in daily physical activity (for example, 60 minutes of accumulated activity such as walking), eating properly and achieving and maintaining a healthy weight can help prevent heart disease, cancer, diabetes, osteoporosis and obesity. People who participate in daily physical activity tend to have lower health care and sick leave costs over their lifetime.

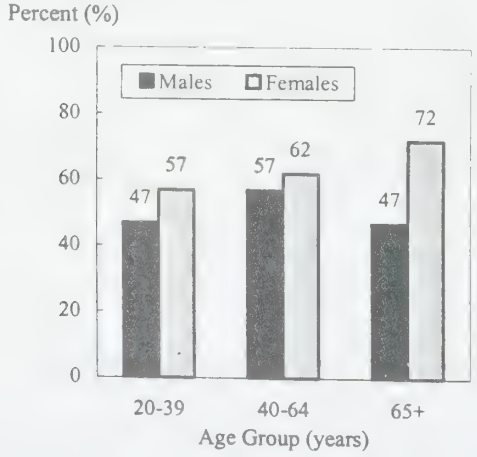
Physical Activity

A recent population health survey collected data on the physical activity level of people living in Hamilton-Wentworth (H-W) in 1996/97. 'Active' people were defined as those who reported energy expenditure sufficient for cardiovascular health benefit (for example, approximately 30 minutes of accumulated exercise per day). In H-W, an estimated 19% of males and 16% of females aged 20 years and over were active in 1996/97.

'Moderately active' people were defined as those who reported energy expenditure sufficient for some health benefit but little cardiovascular benefit (for example, 15 to 30 minutes of accumulated exercise, two to three days per week). In H-W, an estimated 25% of males and 21% of females aged 20 years and over were moderately active in 1996/97.

Overall, 51% of males and 62% of females in H-W aged 20 years and over were inactive in 1996/97. Data on the physical activity levels of males versus females aged 12 to 19 years are not available. However, in this and most other age ranges, females tend to be more inactive than males (Figure 9).

Figure 9. Percentage of Physically Inactive Population Aged 20 Years and Over by Gender and Age Group, Hamilton-Wentworth, 1996/97

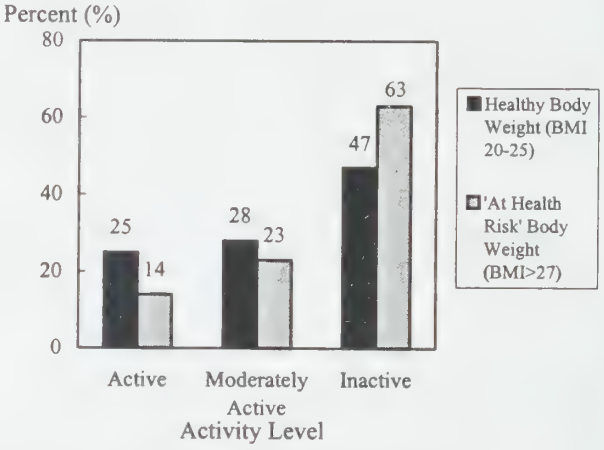


Source: MOHLTC, 1996/97 Ontario Health Survey, 2000.

Healthy Weight and Physical Activity

The Body Mass Index (BMI) is the most common method of determining if an individual's weight is within a healthy range. BMI is calculated by dividing the body weight (in kilograms) by the height (in meters) squared. In general, people aged 20 to 64 years of age, excluding pregnant females, who have a BMI between 20 and 25 are considered to be at a 'healthy weight' while those with a BMI greater than 27 are considered overweight and therefore 'at health risk'. BMI is not appropriate for healthy endurance or power athletes. In H-W, people with a healthy body weight were more likely to be physically active (25%) compared to those with a high body weight (14%) in 1996/97. Conversely, people with a high body weight were more likely to be physically inactive (63%) compared to those with a healthy body weight (47%) (Figure 10).

Figure 10. Percentage of People Aged 20 to 64 Years With Healthy (BMI 20-25) and "At Health Risk" (BMI>27) Body Weights by Physical Activity Level, Hamilton-Wentworth, 1996/97



Source: MOHLTC, 1996/97 Ontario Health Survey, 2000.

Cost of a Nutritious Food Basket in 2000

A 'nutritious food basket' estimates the average cost to purchase foods which meet current nutrition recommendations for individuals or families (see Table 3). The cost of a nutritious food basket is important for assessing the adequacy of incomes.

Table 3. Average Weekly Cost of a Nutritious Food Basket for Selected Individuals and Families, Hamilton-Wentworth, 2000

Type of Individual / Family	Average Cost per Week
Single male (19-24 years)	$36.52
Single mother (25-49 years) with 7-year old daughter	$45.80
A family of 4 individuals (male and female each 25-49 years; boy 13-14 years; girl 7-9 years)	$101.30
Single female (75 years or older)	$24.69

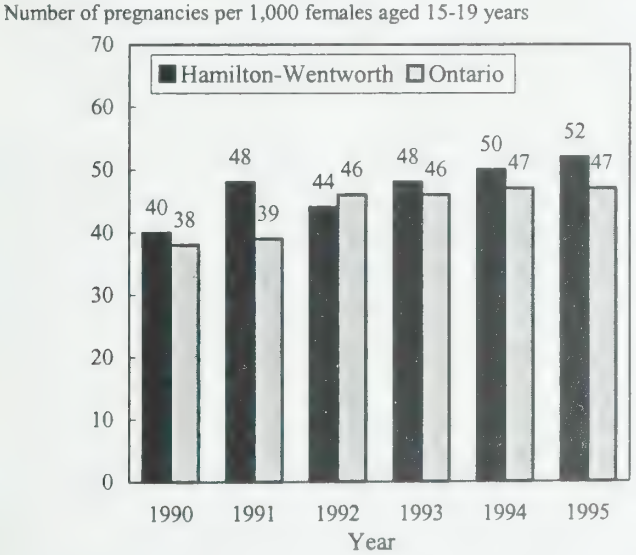
Source: Hamilton-Wentworth Social & Public Health Services Division, 2000.

Teen Pregnancy

In addition to unprotected sex, teen pregnancy is associated with socio-cultural factors such as poverty and unemployment, family factors such as a family history of teenage parenting, and personal factors such as low self-esteem, depression, substance use, history of sexual abuse and low interest in school. Teen mothers and their infants are at increased risk of poor health outcomes such as toxaemia, premature birth and low birth weight.

Following the 1976 introduction of Ontario sexual health programs, the Hamilton-Wentworth (H-W) known teen pregnancy rate decreased by 30% from 62 pregnancies per 1,000 females aged 15 to 19 years in 1976 to 43 per 1,000 in 1989. However, from 1990 to 1995 the known teen pregnancy rate increased in H-W and Ontario (Figure 11). The more recent high rates seen throughout Canada parallel the country's rising poverty rates.

Figure 11. Known Pregnancy Rate† per 1,000 Females Aged 15 to 19 Years, Hamilton-Wentworth and Ontario, 1990-1995*



† Known pregnancy rate = (live births + still births + therapeutic abortions)/ total population aged 15 – 17 years
*Most recent data available.
Source: MOHLTC, Ontario Health Planning System [HelPS], 1999.

In 1996, 354 babies were born to teenage mothers (15 to 19 year olds) in H-W. This represents a teen fertility rate (number of live births per 1,000 teen females) of 24 per 1,000, down from the 1995 teen fertility rate of 26 per 1,000.

Sexually Transmitted Diseases

Reduction of the following sexually transmitted diseases (STDs) could be achieved through safer sex practices, screening, and treatment of positive cases.

- Chlamydia -

Chlamydia accounted for 86% (or 569) of newly reported STDs in H-W in 1999. There were 54 fewer cases reported in 1999 than in 1998 (a 9% decrease).

- The 1999 incidence of chlamydia was higher in H-W than for Ontario overall (122 cases per 100,000 population compared to 112 per 100,000 population).

- Females had 75% of all chlamydia infections reported in H-W in 1999. Of these cases, 72% occurred in females aged 15 to 24 years (1,027 cases per 100,000). This was higher than the Ontario public health target for the year 2005 of 500 cases per 100,000 females aged 15 to 24 years.

- Reported cases of chlamydia may be higher among females than males because females are more likely to show signs and symptoms, and to be tested.

- Gonorrhea –

The incidence of gonorrhea declined in H-W from 51 per 100,000 population in 1990 to 16 per 100,000 in 1999. The Ontario gonorrhea rate (19 per 100,000 population) was higher than that for H-W in 1999.

- HIV and AIDS -

There were 11 new HIV infections reported in H-W in 1999 compared to 12 in 1998 and 23 in 1997. Among the 11 new cases, there were more males than females.

The most common reported risk factor for contracting HIV in H-W were, for males, having sex with a male partner, and for females, having sex with an HIV positive male partner.

There were six new cases of AIDS reported in H-W in 1999 compared to seven in 1998 and five in 1997. Among the six new cases in 1999, there were more males than females. Two-thirds of new AIDS cases were between the ages of 30 to 39 years.

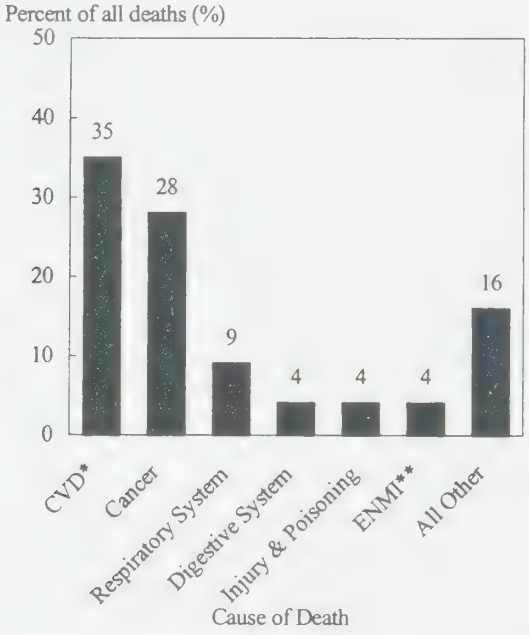
Heart Disease in Hamilton-Wentworth

Cardiovascular disease (CVD) refers to diseases of the circulatory system including ischemic heart disease and stroke. CVD is the number one killer of both males and females in Hamilton-Wentworth (H-W) and Ontario.

Deaths

CVD was the leading cause of death in 1997, the most recent year that statistics are available, accounting for 1,419 deaths or 35% of all deaths in H-W (compared to 37% in Ontario) (Figure 12).

Figure 12. Percentage of All Deaths by Specific Causes, Hamilton-Wentworth, 1997



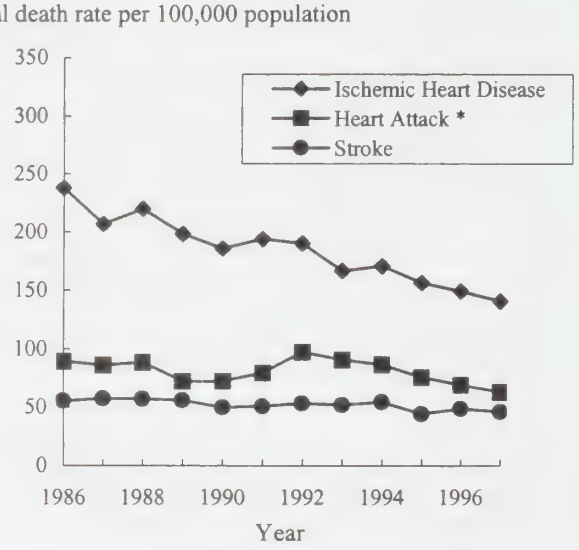
CVD* = cardiovascular disease
ENMI** = Endocrine, nutritional and metabolic diseases and immunity disorders
Source: MOHLTC, Provincial Health Planning Database, 2000.

Of the CVD deaths in 1997, 826 (58%) were due to ischemic heart disease, 276 (19%) were due to stroke and the remaining 317 (22%) were due to other diseases of the heart and blood vessels.

Death rates from CVD vary with age and gender. In H-W, 88% of deaths due to CVD occurred among people aged 65 years and over. Two to three times more males aged 35 to 64 years died from CVD compared to females aged 35 to 64 years in 1997. After age 65, CVD death rates among males and females became more similar.

In H-W, from 1986 to 1997, death rates for ischemic heart disease declined (Figure 13), as they did in Canada as a whole. Changes such as a decrease in general population smoking rates and better treatment of high blood pressure have contributed to the decline.

Figure 13. Age-Standardized[+] Death Rates for Ischemic Heart Disease, Heart Attacks and Strokes, Hamilton-Wentworth, 1986-1997



[+]Death rates were age-standardized to the 1991 Canadian population.
*Heart attack is a subcategory of ischemic heart disease.
Source: MOHLTC, Provincial Health Planning Database, 2000.

Hospital Utilization

In 1998 (fiscal year), CVD was the largest contributor to hospitalization in H-W, accounting for 17% of all hospitalizations. Hospitalization refers to a hospital separation which is defined as discharge from hospital due to death, return to home, transfer to another facility, or patients signing themselves out.

Potential Years of Life Lost

Potential years of life lost (PYLL) is a measure of premature death calculated by adding all of the years of life lost for people who died before the age of 75 years.

- In 1997, CVD was the second leading cause (after cancer) of PYLL in H-W accounting for 19% (or 5,225 years) of all PYLL.

- PYLL due to CVD was two times greater for males (3,500 years) than females (1,725 years) in H-W. This is because males died at an earlier age from CVD compared to females in 1997.

Cancer in Hamilton-Wentworth

Incidence

Among females in Hamilton-Wentworth (H-W) in 1996, breast cancer was the most frequently diagnosed cancer, followed by lung and colorectal cancers (Figure 14). Prostate cancer was the most frequently diagnosed cancer among males, followed by lung and colorectal cancers in H-W in 1996 (Figure 14).

The increase in lung cancer incidence and death rates in females corresponds to increased tobacco use among females in the 1960s and 1970s compared to previous decades. Recently, the incidence and death rates for lung cancer in males have declined. This trend is likely due to decreased tobacco use among males over the past 30 years.

Deaths

In 1997, cancer was responsible for 1,114 deaths or 28% of all deaths in H-W, making cancer the second leading cause of death after cardiovascular disease.

Lung, colorectal, breast and prostate cancer accounted for 52% of all cancer deaths in H-W in 1997. Among H-W females, lung and breast cancers were the leading causes of cancer death. Lung cancer was the leading cause of cancer death among males.

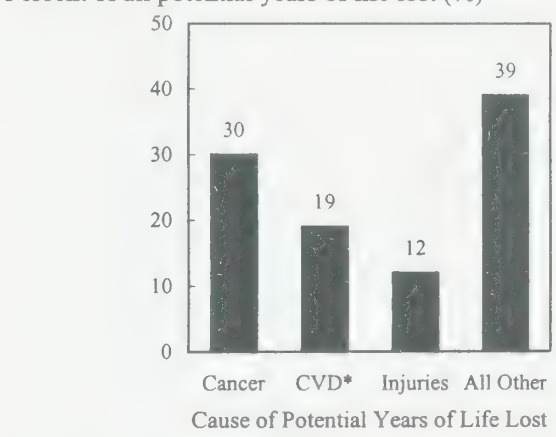
Cancer deaths occur more frequently in older adults. For example, of all cancer deaths from 1987 to 1997 in H-W, 70% occurred among people 65 years of age and over.

Potential Years of Life Lost

Potential years of life lost (PYLL) is a measure of premature death calculated by adding up all of the years of life lost for people who died before the age of 75. Cancer was the leading cause of premature death in H-W in 1997, responsible for 30% of all PYLL among males and females. Cardiovascular disease accounted for 19% of PYLL, whereas injuries accounted for 12% and all other causes were responsible for the remaining 39% of PYLL (Figure 15).

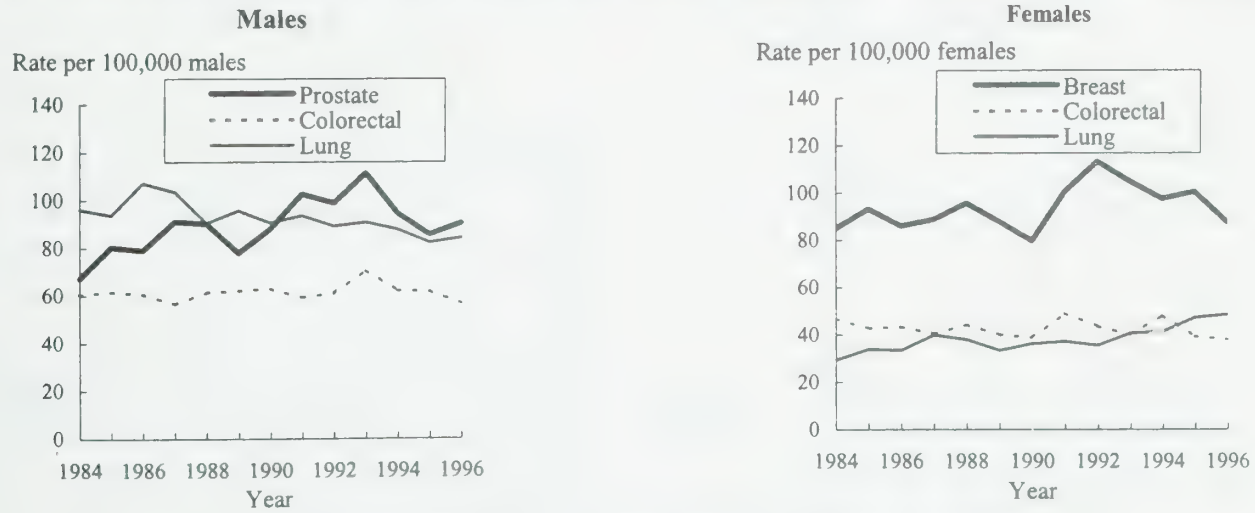
Although more males die from cancer every year, female specific cancers tend to occur earlier in life.

Figure 15. Percentage of All Potential Years of Life Lost by Cancer, Cardiovascular Disease, Injuries and All Other Causes, Hamilton-Wentworth, 1997



CVD* = cardiovascular disease
Source: MOHLTC, Provincial Health Planning Database, 2000.

Figure 14. Trends in Age-Standardized* Incidence Rates for Selected Cancer Sites by Gender, Hamilton-Wentworth, 1984-1996+



*Age-standardized to the 1991 Canadian population. +Most recent data available.
Source: MOHLTC, Ontario Cancer Incidence Database, 2000.

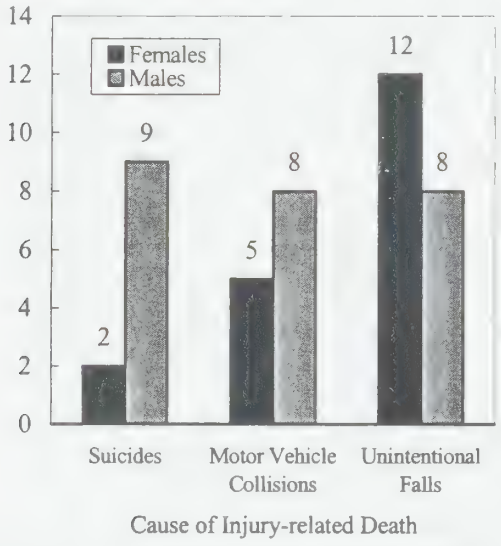
Deaths

In Hamilton-Wentworth (H-W), there were 158 injury-related deaths accounting for 4% of all deaths in 1997. Unintentional falls were the leading cause of injury-related death followed by motor vehicle collisions and suicide.

Injury death rates varied by gender and age group in H-W in 1997. Deaths due to falls were more frequent among females compared to males, while motor vehicle collision and suicide deaths were more frequent among males than females in H-W in 1997 (Figure 16).

Figure 16. Number of Injury-related Deaths Due to Suicides, Motor Vehicle Collisions and Unintentional Falls by Gender, Hamilton-Wentworth, 1997

Number of deaths per 100,000 population



Source: MOHLTC, Provincial Health Planning Database, 2000.

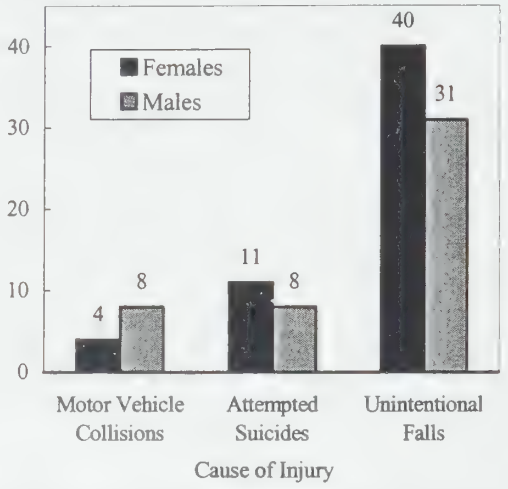
In H-W in 1997, falls were the most common cause of injury-related death among people aged 65 years and over, especially among females (68 per 100,000). Motor vehicle collisions contributed to injury-related deaths in all age groups, but were most frequent among males aged 20 to 29 years (18 per 100,000). Suicide was also a major contributor to injury-related deaths in all age groups, particularly among males aged 20 to 49 years (12 per 100,000).

Hospital Utilization

In H-W, falls were the most common cause of injury-related hospitalization in 1998 (fiscal year) followed by attempted suicide and motor vehicle collisions. In 1998 (fiscal year), injury-related hospitalization rates varied by gender (Figure 17).

Figure 17. Number of Hospitalizations due to Motor Vehicle Collisions, Attempted Suicides and Unintentional Falls, Hamilton-Wentworth, 1998 (fiscal year)

Number of hospitalizations per 10,000 population



Source: MOHLTC, Provincial Health Planning Database, 2000.

Among people aged 14 years and under and 35 years and over, falls were the most frequent reason for hospitalization due to injury in H-W in 1998. People aged 85 years and over had the highest hospitalization rate due to falls, especially among females (507 per 10,000). Among people aged 15 to 34 years, attempted suicide was the most frequent cause of injury-related hospitalization in H-W in 1998, especially among females aged 15 to 19 years (23 per 10,000).

Acts of physical violence resulted in a hospitalization rate of 4 per 10,000 males and 1 per 10,000 females in H-W in 1998 (fiscal year). Males aged 15 to 19 years had the highest hospitalization rate due to violence (11 per 10,000). These rates likely underestimate the true incidence of injury due to violence in H-W since only the most severe incidents of violence result in hospitalization.

Child Pedestrian Injuries

A recent study reviewed pedestrian motor vehicle injuries to children up to 14 years of age in the City of Hamilton from 1978 to 1994. The child pedestrian injury rate was 2.5 times higher on one-way streets than on two-way streets (46 vs. 20 per 100,000 children per 100 km of street per year). Children living in the poorest Hamilton neighbourhoods were three times more likely to be injured than those living in the wealthiest neighbourhoods (33 vs. 12 per 100,000 children per 100 km of street per year).

Infectious Diseases in Hamilton-Wentworth

In Ontario, the Health Protection and Promotion Act identifies over 60 infectious diseases that must be reported to the local Medical Officer of Health. In 1999, 1,992 confirmed cases of reportable infectious disease were recorded for Hamilton-Wentworth (H-W), down 7% from 2,147 cases in 1998.

West Nile Virus (WNV) is an infection of birds which is sometimes transmitted to humans by mosquitoes. Prior to 1999, it was known only in Africa, Asia and Europe. At the time of press, the WNV had made its way across New York State and other parts of the northeast coast of the U.S. During a 1999 outbreak in New York City, there were 62 confirmed human cases of WNV. Most cases occurred among persons aged 50 years and over. Of the 62 confirmed cases, 95% (or 59) were hospitalized and 11% (or 7) died. All deaths occurred among persons aged 68 to 87 years.

In early 2000, the Canadian government instituted WNV surveillance along Canada's border. In addition, public health agencies are undertaking surveillance among humans and dead birds to detect the introduction of the virus into Ontario. Contingency plans to minimize the impact of the virus, should it appear in Ontario, are being developed.

Multi-Drug Resistant Organisms

Many organisms are developing immunity to current antibiotics. Due to the increased incidence of resistant strains, in 1999 the Ministry of Health and Long-Term Care, together with health care professionals representing the continuum of health care, developed guidelines for the care of people infected with resistant strains.

Methacillin-resistant Staphylococcus aureus (MRSA) is an example of a resistant organism currently seen in local hospitals. In 1999, 784 new cases of MRSA were identified in H-W hospitals compared to 831 new cases identified in 1998.

Tuberculosis (TB) Control

In 1999, 18 new and reactivated cases of TB were confirmed in H-W (four cases per 100,000 population). In 1998, 32 new and reactivated cases were reported.

Pandemics of Influenza

Pandemics (or world-wide epidemics) of influenza occur about every 30 years. The last one occurred in 1968/69. Pandemics are caused by a new, virulent strain of influenza that can infect up to 75% of the population. The six to eight month lag time between isolating the strain and developing a vaccine puts very young, very old, and immuno-compromised people at risk of severe illness and possibly death. Planning efforts to minimize the impact of a pandemic are underway at all levels from local to international.

Influenza

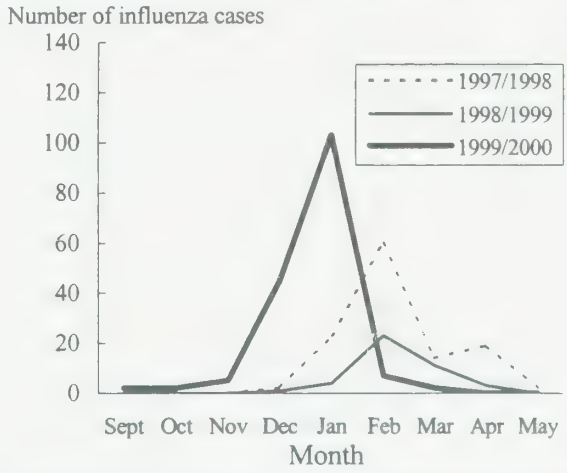
Each year, the influenza season begins in the fall and lasts into the spring. In H-W, the 1999/2000 influenza season started about two months sooner than the 1997/98 and 1998/99 seasons (Figure 18).

In H-W there were 18 influenza outbreaks in long-term care facilities during the 1999/2000 season compared to five in 1998/1999 and 16 in 1997/98.

In 1999, increased efforts were made at both the provincial and local levels to raise staff influenza immunization rates in long-term care facilities in order to decrease the spread of influenza among residents.

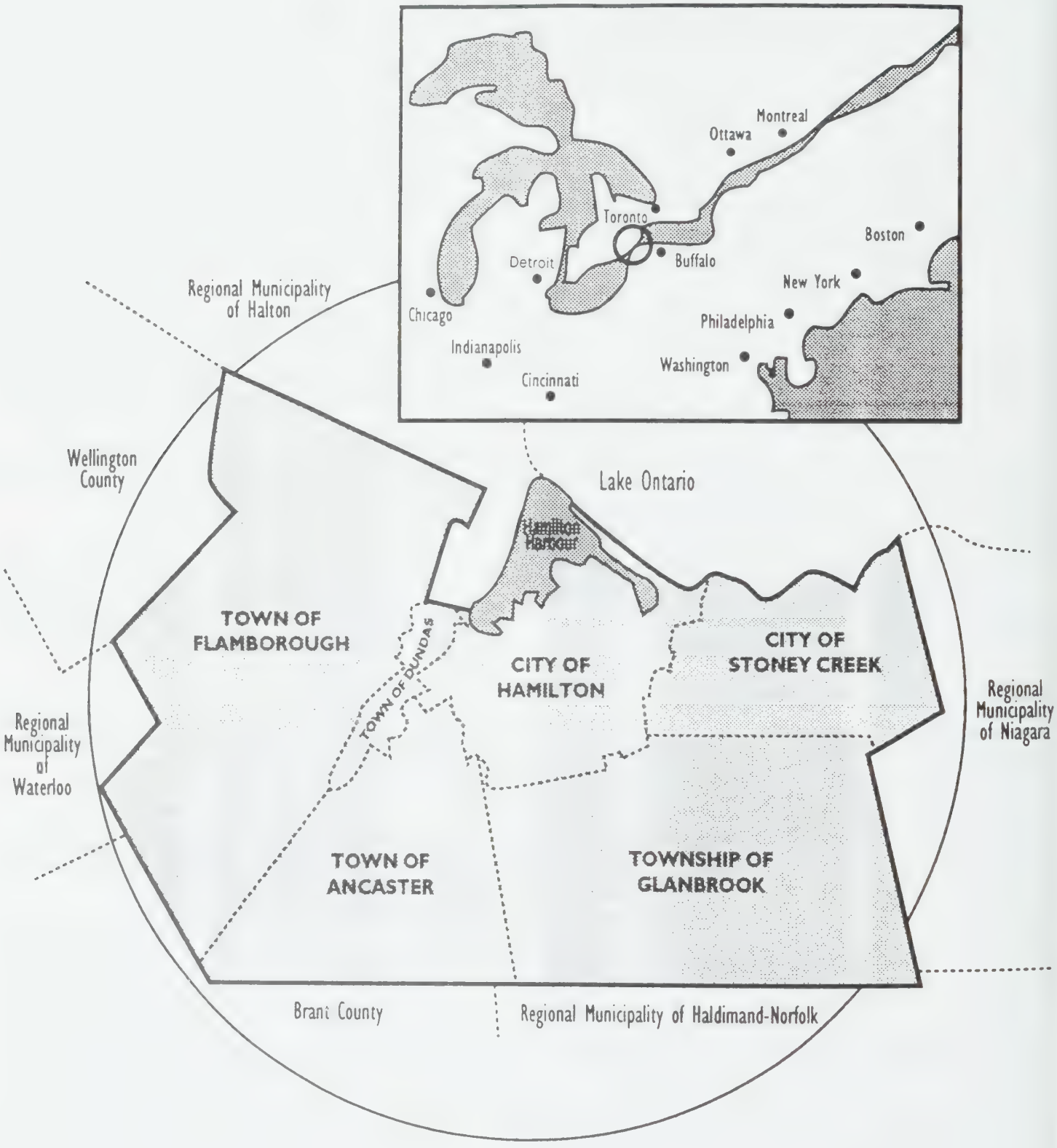
In 1999/2000, 85% of staff in long-term care facilities were immunized against influenza whereas 33% of long-term care facility staff were immunized during the 1998/1999 season.

Figure 18. Number of Confirmed Influenza Cases by Month, Hamilton-Wentworth, 1997/98–1999/2000 Seasons



Source: Hamilton-Wentworth Social & Public Health Services, Reportable Disease Information System, 2000.

Map of the Regional Municipality of Hamilton-Wentworth



Source: The Regional Municipality of Hamilton-Wentworth. 1992 Annual Financial Report.

Notes